

We Claim:

1. A method of replacing an anterior cruciate ligament
in a knee, comprising:

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providing a graft having a first end and a
second end;

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drilling a bone tunnel in a tibia, said bone
tunnel having an inner wall;

drilling a bone tunnel in a femur, said bone
tunnel having an inner wall;

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mounting the first end of the graft in the
femoral bone tunnel;

mounting the second end of the graft in the
tibial bone tunnel;

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providing a biodegradable, composite
interference screw, said interference screw
comprising:

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a biodegradable comprising a copolymer of poly
(lactic acid) and poly(glycolic acid); and,

a bioceramic;

inserting the biodegradable screw into the femoral bone tunnel between an interior surface of the femoral bone tunnel and the first end of the graft; and,

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rotating the interference screw such that the screw is substantially contained within the femoral bone tunnel, and the first end of the graft is fixed in place between the interference screw and a section of the interior surface of the femoral bone tunnel.

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2. The method of claim 1, additionally comprising the steps of:

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inserting the second end of the graft into the tibial tunnel;

inserting the biodegradable screw into the tibial bone tunnel between an interior surface of the tibial bone tunnel and the second end of the graft; and,

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rotating the interference screw such that the screw is substantially contained within the tibial bone tunnel, and the second end of the graft is fixed in place between the interference screw and a

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section of the interior surface of the tibial bone tunnel.

3. The method of claim 1, wherein the bioceramic
5 comprises a bioceramic selected from the group
consisting of mono-, di-, tri, α -tri-, β -tri and tetra-
calcium phosphate, hydroxyapatite, calcium sulfates,
calcium oxides, calcium carbonate, and magnesium calcium
phosphates.
- 10 4. The method of claim 4 wherein the bioceramic
comprises β -tricalcium phosphate.
5. The method of claim 1 wherein the bioabsorbable
15 polymer comprises a copolymer of polylactic acid and poly
(glycolic acid) comprising about 85 mole percent to about
95 mole percent of poly (lactic acid) and about 5 mole
percent to about 15 mole percent of poly (glycolic acid).
- 20 6. The method of claim 5 wherein the bioabsorbable
polymer comprises a co-polymer of about 85 mole percent
poly (lactic acid) and about 15 mole percent poly
(glycolic acid).
- 25 7. The method of claim 1 wherein the composite screw
comprises about 2.0 Volume percent to about 25.0 Volume
percent of bioceramic.

8. The method of claim 1, wherein the composite screw comprises about 15.0 Volume percent of bioceramic.

5 9. The method of claim 1, wherein the graft has a bone block attached to one end.

10. The method of claim 1, wherein each end of the graft has a bone block attached thereto.

10 11. The method of claim 1 comprising the additional step of tapping the inner surface of the bone tunnels and the bone blocks to create a threaded space therebetween.